

What is claimed is:

1. An image forming device comprising:

a body;

a developer member mounted to the body;

5 a first frame pivotally mounted to the body at a first pivot and positionable between an open orientation positioned away from the body and a closed orientation positioned in proximity to the body;

a second frame pivotally connected to the first frame at a second pivot and further comprising a photoconductive member that aligns to the developer member when the first frame is in the closed orientation, the second frame further having an alignment edge; and

15 a contour surface within the body having a length greater than the alignment edge, the contour surface being contacted by the alignment edge as the first frame moves from the open orientation to the closed orientation to align the photoconductive member relative to the developer member.

2. The device of claim 1, wherein the contour surface extends between an inner edge towards the body and an outer edge towards the first frame, a vertical high point of the contour surface is located at the outer edge.

20 3. The device of claim 1, wherein the contour surface extends between an inner edge towards the body and an outer edge towards the first frame, a vertical high point of the contour surface is located at the inner edge.

25 4. The device of claim 1, wherein the contour surface is located on a lower half of the body.

5. The device of claim 1, wherein the alignment edge is formed by a transfer belt assembly.

6. The device of claim 1, further comprising stops extending outward from the first frame on each side of the second pivot to control an extent of movement of the second frame relative to the first frame.

5 7. The device of claim 6, further comprising a biasing member extending between the first frame and the second frame to position the second frame against one of the stops when the first frame is in the open orientation.

10 8. The device of claim 1, further comprising a biasing mechanism positioned between the first frame and the second frame to dampen the movement of the second frame as the alignment edge moves along the contour surface.

15 9. The device of claim 1, further comprising an imaging unit within the body to form a latent image on the photoconductive member, the second frame positioning the photoconductive member at a predetermined location relative to the imaging unit when the first frame is in the closed orientation.

20 10. The device of claim 1, wherein the second frame is pivotally connected to the first frame at a position above the contour surface when the first frame is in the closed orientation.

11. The device of claim 1, wherein the first frame contacts the body in the closed orientation.

25 12. The device of claim 1, wherein the contour surface has a curved shape.

13. The device of claim 12, wherein the contour surface is curved an amount equal to a radius of a line that extends between the first pivot and the second pivot.

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14. An image forming device comprising:

a body;

a developer member positioned within the body;

a first frame having a first end and a second end;

5 a first pivot adjacent to the first end that connects the first frame to the body, the first frame being relatively positionable between a first orientation with the second end distanced from the body, and a second orientation with the second end in proximity to the body;

a second frame having a photoconductive member; and

10 a second pivot that connects the second frame to the first frame and causing the second frame to pivot separately from the first frame and positioning the photoconductive member in contact with the developer roll when the first frame is in the second orientation.

15 15. The device of claim 14, wherein the second end contacts the body in the second orientation.

16. The device of claim 14, wherein the first pivot is located vertically below the second pivot when the first frame is in the second orientation.

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17. The device of claim 14, further comprising the photoconductive member mounted towards a first end of the second frame distant from the first pivot, and a second photoconductive member mounted towards a second end of the second frame proximate to the first pivot, with the photoconductive member and the
25 second photoconductive member being vertically aligned when the first frame is in the second orientation.

18. The device of claim 14, wherein the second frame comprises a face opposite from a connection with the second pivot, the face being substantially vertical in
30 the second orientation.

19. An image forming device comprising:

a body;

a plurality of developer members mounted to the body;

5 a first frame pivotally mounted to the body at a first pivot and positionable between an open orientation positioned away from the body and a closed orientation positioned in proximity to the body;

a second frame pivotally connected to the first frame at a second pivot and further comprising a plurality of photoconductive members that each align to a corresponding one of the plurality of developer members when the first frame is
10 in the closed orientation, the second frame further having an alignment edge; and a contour surface within the body, the contour surface being contacted by the alignment edge as the first frame moves from the open orientation to the closed orientation and having a curved shape equal to a radius formed by a line with a length equal to a distance between the first pivot and the second pivot.

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20. An image forming device comprising:

a body having a contour surface;

a first frame having a first end and a second end;

20 a first pivot adjacent to the first end that connects the first frame to the body;

a second frame having an alignment edge; and

a second pivot that connects the second frame to the first frame and causing the second frame to pivot separately from the first frame;

25 the first frame being relatively positionable between a first orientation with the alignment edge distanced from the contour surface and the second frame positioned relative to the first pivot, and a second orientation with the alignment edge in contact with the contour surface and the second frame positioned relative to the body.

30 21. The device of claim 20, wherein the contour surface is substantially flat.

22. A method of moving a door assembly on an image forming device, the method comprising the steps of:

moving a door assembly from an open orientation to an intermediate orientation in a first travel path defined by a first pivot, the door assembly comprising a first frame attached to a body at the first pivot, and a second frame attached to the first frame at a second pivot;

contacting the second frame with a contour surface in the body as the door assembly moves from the intermediate orientation to a closed orientation; and

moving the door assembly from the intermediate orientation to the closed orientation and moving the first frame in the first travel path defined by the first pivot and moving the second frame in a second travel path defined by the contour surface.

23. The method of claim 22, further comprising positioning a photoconductive member on the door assembly against a developer roll in the body when the door assembly is in the closed orientation.

24. The method of claim 22, wherein moving along the first travel path is rotational movement.

25. The method of claim 22, wherein the second travel path is formed by moving a contact surface of the second frame against a contour surface of the body.

26. The method of claim 25, wherein the second travel path is curved because the contour surface has a curved shape.

27. The method of claim 25, wherein the second travel path is substantially straight because the contour surface is flat.

28. A method of moving a door assembly on an image forming device, the method comprising the steps of:

positioning a developer member in a body;

attaching a photoconductive member to a second frame;

5 moving a door assembly with a first movement type from an open orientation to an intermediate orientation, the door assembly comprising a first frame and the second frame;

contacting the second frame against the body as the door assembly moves to the intermediate orientation; and

10 moving the door assembly to a closed orientation with the first frame moving with a first movement type and the second frame moving in a second movement type different from the first movement type.

29. The method of claim 28, further comprising moving the first frame and the
15 second frame about a first pivot between the open orientation and the intermediate orientation.

30. The method of claim 29, further comprising moving the first frame about the first pivot between the intermediate orientation and the closed orientation.
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31. The method of claim 28, further comprising vertically positioning a face of the second frame during movement between the intermediate orientation and the closed orientation.

25 32. The method of claim 28, further comprising moving a distal point on a face of the second frame a same travel distance as a proximal point on the face of the second frame.

33. The method of claim 28, further comprising dampening the movement of
30 second frame relative to the first frame when moving between the intermediate orientation and the closed orientation.

34. A method of moving a door assembly within an image forming device, the door assembly comprising a first frame pivotally attached to a main body at a first pivot and a second frame pivotally attached to the first frame at a second pivot,
5 the method comprising the steps of:

moving a door assembly from a first orientation to a second orientation
and moving a distal point on a second frame a greater distance than a proximal
point;

10 contacting a contact point on the second frame with a contour surface on
the main body at the second orientation;

moving the door assembly from the second orientation to a third
orientation and sliding the contact point along the contour surface; and

moving the distal point and the proximal point an equal distance when
moving the door assembly from the second orientation to the third orientation.

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35. The method of claim 34, further comprising rotating the second frame about
a second pivot when moving the door assembly from the second orientation to
the third orientation.

20 36. The method of claim 34, further comprising contacting a photoconductive
member on the second frame against a developer member within the main body
at the third orientation.

25 37. The method of claim 34, further comprising maintaining a face of the second
frame in a vertical orientation when moving the door assembly between the
second orientation and the third orientation.

30 38. The method of claim 34, further comprising positioning a first pivot that
connects the first frame to the main body vertically above a second pivot that
connects the second frame to the first frame.